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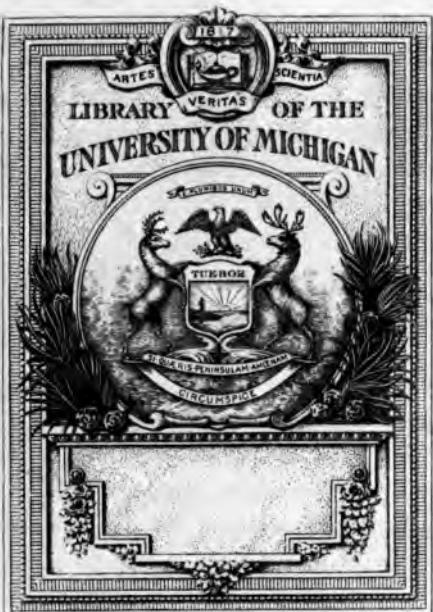
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THE HERBERT SPENCER LECTURE

DELIVERED AT OXFORD, MARCH 9, 1905

BY

FREDERIC HARRISON, M.A.

HON. FELLOW, WADHAM COLLEGE

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HERBERT SPENCER

THE circumstances under which I am invited to address this University bear emphatic witness to the profound and world-wide influence of Herbert Spencer. A Hindoo gentleman, once responsible for the government of a native Indian state, and a Master of Arts of Balliol College, has endowed a Lectureship in the name of our English philosopher. The University, in the broad spirit of its culture that Spencer himself so curiously misunderstood, has accepted this commemoration of the founder of a System, which, to say the least, ignored both its immemorial theology and its ancient learning. And now, by the choice of the founder of this Lectureship and of the Academic authorities, one is called to open this Course whose only claim to philosophy is that for thirty years he has sought to explain and to propagate the system of a French philosopher to whom Spencer declared himself opposed on many points. He certainly coincided with him on many others. These points were quite as essential, and some differences also may be reconciled in the end. Philosophy, to be worthy of its name, must ever embrace and reconcile fundamental differences of view.

It will not be supposed that I come here to revive any former controversies or to start any new. For forty years I enjoyed the friendship and valued the advice of Mr. Spencer. For many years I was in close touch with him and with his most intimate

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associates, so that I had ample opportunity of becoming familiar with the inner story of his long intellectual martyrdom to his high purpose. In public and in private I have never ceased to express all the admiration I felt for his grand intelligence, for his tenacious devotion to duty, and his truly marvellous perseverance. At his death I expressed my deep sense that our country had lost its most eminent philosopher. And I shall not depart from that spirit of grateful reverence.

But, again, this is no occasion for an apodictic eulogy. I come here to speak of a system of philosophy—not to praise a man in words of idle rhetoric. As this is the first of these Lectures, as I was myself in touch so long and so closely with Herbert Spencer the man, and not simply the author of books, it will be right for me to begin with some personal reminiscences. I shall then seek to call attention to the permanent significance of the Synthetic Philosophy, without pretending to conceal what I hold to be its aspects of weakness and narrowness, but without venturing to insist on or to develop these points of difference. And finally, I shall ask your indulgence if I try to sketch in slight outline those conditions of logic, of science, of human psychology, which must be fulfilled by any scheme of *Synthesis* worthy of that great name, apart from the special doctrines whether of Spencer or of Comte.

I use true but guarded words if I venture to say that, in the judgement of foreign as well as of English thought, Herbert Spencer was the most prominent English philosopher of the nineteenth century. I do not say the greatest man of science, or the subtlest metaphysician, or the most creative genius, but the philosopher whose ideas have had the widest range,

and have commanded at home and abroad the most penetrating power. This judgement rests on the fact of the very rare band of those who can be called philosophers, and of the infinite difficulty of the task of constructing anything that can be treated as a Synthesis of human knowledge. In a world saturated with departmental research and with specialist learning, the effect of a synthetic co-ordination of ideas forces the attention and stirs the imagination of all serious students, whether they accept or reject the special conclusions of the system.

In any case, all can do justice to a noble life of devotion to social duty and a grand ideal. The story of Spencer's life has been one of almost unexampled absorption in the vast task to which he dedicated himself from youth. The record of British philosophy can hardly furnish an instance of perseverance in labour so continuous, so protracted, so beset with difficulties and obstacles of all kinds—scanty means, desultory training, oppressive neglect, bodily suffering—in a career wherein profit, honour, and success were hardly to be expected, or came so late as to be little valued. For more than forty years he laboured to build up his encyclopaedic system step by step, without for an hour swerving from his aim, or sacrificing one of his rigid rules of life. Personal tastes could not draw him, nor could obstacles deter him, from his goal. Enjoying the society of cultivated men and women, as he did, and forced to accept involuntary leisure from the state of his health, he yet habitually shunned every social distraction. No prospect of gain, no hope of rest, no fear of destitution, no prostration by disease, ever tempted him, or ever drove him from his allotted task. No man ever

more entirely fulfilled the maxim of the French poet, which another philosopher took for his favourite device: '*What is it that makes a great life? It is the ideal of youth carried out in mature age.*' It is thus that, almost alone of modern philosophers, Herbert Spencer achieved all that he purposed, and perhaps all that he was capable of completing.

This abnormal power of philosophic detachment from the vulgar interests and pursuits of ordinary life enabled Spencer to achieve his end in spite of the unremitting pressure of physical ailments. It would be difficult to find another example of vast intellectual performance carried through against incessant recurrence of prostrating ill-health. The posthumous *Autobiography*, with its diaries, letters, and memoranda, reveals what, even to his intimate friends was not fully known, the degree to which the philosopher was perpetually incapacitated from all mental work. His physique was good and his health sufficient in early life. But at thirty-five he suffered from a break-down which left him a permanent invalid, so far as continuous mental attention was concerned. Dyspepsia, insomnia, nervous irritability dogged him for the rest of his life. His labour was continually interrupted for weeks and even for months together. At no period after middle life was he ever capable of more than three hours of reading or dictation in each day. The effort of composition was seldom continued for more than half an hour, or even ten minutes, without a pause to rest. After a few hours of work he was unable, during the rest of the day, even to read a novel or to engage in general conversation. The slightest mental effort, or the most ordinary excitement, brought on that cerebral congestion which cut him off from

books, from society, from sleep, and even artistic amusement. Fishing, sailing, and strolling along the seaside were the only solace of these cerebral disorders. The extraordinarily scanty time which Spencer could give to reading, to composition, or even to meditation, and yet the achievement of so vast a result—this remains a problem for psychologists and biologists to solve. Professor Huxley told me that he had never met a man who had so great a power to pick the brain of a competent student. For many years Spencer lived in close intellectual commerce with men of special authority in all the natural sciences. In these days when we hear so much of exhausting study and over-pressure, it is well to remind young students what achievements are possible to the Darwins, the Carlyles, and the Spencers, by the intense concentration of their brain-power, rather than by the long hours they spend at their desk.

Spencer stands forth amid all our English philosophers since Bacon, as having deliberately set to himself, for the task of his life, the framing a *Synthesis* of Knowledge—a Science of the Sciences—a System whereby all human ideas, scientific, moral and social, could be harmonized in one dominant concatenation or correlation. To Spencer, *Synthesis* meant a real organization of the sciences, the binding up of all special learning into an organic unity—vitalized in every cell of the encyclopaedic mass by creative and omnipresent ideas, themselves inspired and controlled by one governing conception. In this ideal Spencer (amongst us) stood alone. The *Synthetic Philosophy* is (in Britain) unique. No British philosopher, unless it were Roger or Francis Bacon, has conceived, or even adumbrated, anything of the kind. And we know how rudimentary were the

sciences in the time of either Bacon, how hopeless a dream it was for either to presume to organize general science. Utterly unlike Francis Bacon as was Spencer, in character, in life, and in brain, even the antithesis of Francis Bacon in many things, the critics both at home and abroad have constantly compared them and contrasted them, by reason of the encyclopaedic nature of their studies and the synthetic power of their genius. And for this there is a certain warrant in fact. That of which Francis Bacon dreamed with his luminous imagination Spencer planned out with a far sounder scientific basis and a less utopian ambition. Spencer thereby remains our one synthetic philosopher. Whether that Synthesis has yet been, or is ever destined to be, accepted as adequate is a problem which we may presently consider. But its rare power to rivet the attention of the thinking world, and to plant the seeds of an infinite crop of fertile conceptions, can hardly be gainsaid by any serious student of the evolution of modern thought.

Whether one can rest satisfied with such a symmetrical solution of the mysteries of the Universe, whether any Synthesis of the Universe as a whole be a practicable problem, to be solved as yet, or indeed at any future time, we can all do justice to the magnificent vision of a coherent Synthesis, a system combining physical and sociologic knowledge in one scheme. And we all bow down to the heroic courage with which Herbert Spencer put aside pleasures and rewards in the long strain after his supreme idea. The literary and scientific world in Europe, in America, and in the Far East does homage to this devotion to the ideal of a Synthetic Philosophy. To many it comes like the dawn of a new era, in an age absorbed in the infinite analyses of fissiparous specialism.

It seems to offer a possible clue to the mighty labyrinth within which we still wander almost without hope.

The men who succeed in organizing any scheme of general thought, in such a way as to command the attention of all those in the civilized world who devote themselves to philosophy and to science, are so infinitely few—the resources needed even to attempt such a task are so complex and so rare—their labours are so precious to the advancement of human thought, that we judge their work to be worthy of study and honour, even if we find manifest errors in certain parts, and they fail to satisfy their generation. Consider the sophisms now acknowledged to ruin some of the most famous philosophies of the past. Remember how small after all is the residuum of permanent truth accepted as the contribution to human thought of the most illustrious thinkers of old. For some two thousand years the noble utopia of Plato has been an armoury of pregnant ideas to the religious and speculative conceptions of the entire West. We can smile at his exquisite fantasies and his airy hypotheses—yet we ponder him with delight, and refashion his gorgeous cloudland again and again—*amicus Plato sed magis amica veritas*. On what wings of unstable wax did the two Bacons essay to rise into the empyrean and face the Sun of truth! How puerile seem to us now Descartes' *vortices* and not a little in Hume's arid dogmatism and in Hegel's paradoxical transcendentalism with its identity of contradictions. And withal, how great and how just is the reputation of these men!

The truly general syntheses are so extraordinarily few in the history of the human mind, they lead to such wide and unexpected results when they stir the interest of the philosophic world, that any substantial

synthesis lives and moulds opinion, even when its details are rejected and its conclusions are ignored. To put aside the ancients, Aristotle, Plato, and their derivative schools; to put aside the mediaeval logicians, Albert, Roger Bacon, Aquinas, all of whom constructed provisional and indeed illusory syntheses of a kind, under the dominant theology and metaphysics; to come to the moderns, we can only name with assurance Descartes, Leibnitz, Kant, and Hegel. Neither Francis Bacon, nor Hobbes, nor Locke, nor Hume, nor Diderot, nor Montesquieu, nor Bentham, Mill, or Hamilton, attempted what a true Synthesis demands—a general co-ordination of all the sciences, a harmony of the moral and the physical worlds as we know them. Nor, in our own generation, can I count more than two such schemes of general knowledge—the Positive Philosophy of Auguste Comte, and the Evolutionary Philosophy of Herbert Spencer. It is no paradox that, in philosophy, a systematic co-ordination of ideas may ultimately be judged as abortive, and yet may remain one of the landmarks of human thought and a monument of human genius.

Consider the far-reaching and incalculable effects upon all subsequent thought of such fundamental conceptions as those of Bacon's *Organum*, Descartes' *Meditations*, Newton's *Principia*, Hume's *Essays*, Kant's *Kritik*, Darwin's *Origin of Species*. These effects are quite distinct from acceptance of the whole of these conceptions as irrefragable truth. An age which has dedicated its industry to infinitesimal analysis and an almost jealous specialism is too apt to slight the power of the imagination in the service of a great constructive brain. Philosophy, like poetry itself, can do nothing abiding without the synthetic imagination. To limit

the attention to flaws in the details of a symmetrical scheme of ideas is like wasting time over anachronisms in the *Iliad*, or false astronomy in the *Divine Comedy*.

What is the true definition of *Philosophy*—what of *Synthesis*—what of *Evolution*? Philosophy means *ultimate generalization*. Spencer correctly defined it as ‘knowledge completely unified.’ Our first crude observations are special, local, disparate. Science only begins with the colligation of crude separate observations. Each general science implies the colligation of a large body of departmental generalizations. The generalization of all the general sciences in their ultimate co-ordination is philosophy. Such is Spencer’s own account of it; and, no doubt, with modifications in language, such an account of philosophy would be generally, or at least very widely, accepted. Well! it was to the search for such ultimate generalization of all general scientific conceptions that Spencer dedicated his life—a task which so very few in the history of human thought have ever attempted—in which almost no one has succeeded.

Now, as to the meaning of *Synthesis*—an indispensable word which is needed not only for philosophy but for all serious thought. Synthesis—the converse of analysis—is the co-ordination of general conclusions. All real philosophy, no doubt, is synthetic—a term introduced long ago by Comte, which Comte and Spencer incessantly employ. By a ‘Synthetic System of Philosophy’ Spencer seems to have understood a system which propounded a harmony of all the known sciences, as distinct from any system of transcendental Ontology. In that sense the ‘Synthetic System’ of Spencer and the ‘Positive Philosophy’ of Comte mean entirely the same thing. Both mean the ultimate

generalization of the whole field of real knowledge, the co-ordination of all positive science. Theology, Ontology, Cosmogony stand outside both systems—in the void and formless infinite of the Unknown.

Let us turn to define *Evolution*—a word about which much ambiguity exists. In its narrower sense ‘*Evolution*,’ a term not at first used by Darwin, means the morphological and physiological variations of organic beings by the action of natural selection. It then came to be loosely applied to almost any specific theory about the origin and development of things. At one time to doubt such a dogmatic genesis was to risk being charged as an unbeliever in Darwin’s great theory of animal transformation. I used to think that Professor Huxley looked on ‘*Evolution*’ as the *nom de guerre* of the Royal Society, or perhaps even of its most eloquent Fellow. But ‘*Evolution*’ in the hands of Herbert Spencer meant something quite different: far wider in scope and more philosophic in spirit. Spencer meant by *Evolution* a theory of the gradual development of all phenomena, cosmical and physical, human and moral, under a set of dominant and co-ordinate principles. These principles were to form the ultimate generalization of all the Sciences; they had to explain and harmonize them all under a vast clarifying searchlight.

Now Spencer’s conception of *Evolution*, as formulated in his famous propositions, is a Synthesis far wider than any theory of Darwin’s, not at all comparable with it, and in general idea even anterior to the theories of Darwin by date of publication. Darwin certainly, and not Spencer, was the originator of the strictly biological law, inductively proved, of the modification of organic beings by natural selection and some other

agencies. Spencer very soon adopted this view, incorporated it in his own system, and to the last maintained important qualifications of it as essential. But, even prior to the publication in 1859 of Darwin's *Origin of Species*, Spencer, from 1852 downwards, had stated his general law of Evolution, using that term which had been common in French philosophy for more than a century, but always falling short of the theory of Natural Selection in the struggle for life.

And then, in 1860, Spencer put forth his encyclopaedic scheme of a general philosophy, based upon the laws of Evolution as applicable to the whole field of human knowledge—cosmical, material, vital, and human. Spencer's conception of Evolution, though it incorporated Darwin's laws as to the mutability of species, is not only utterly different from pure Darwinian Evolution, but is not commensurable with it. We could no more compare them than we can compare Kepler's laws of planetary motion with Bacon's Inductive method. Darwin was a naturalist: Spencer was a philosopher. And no one was more ready than Darwin himself to recognize the difference and the higher rank of the philosopher. Darwin rarely quits the ground of multiple inductions and massive observations of the organic world. Spencer was no specialist. He attempted a general co-ordination of phenomena, cosmical and human, dealing very largely in abstract propositions; using the deductive method even more than the inductive; using logic and hypothesis quite as much as observation. Not only is Spencer's Evolution disparate from Darwin's, but, to the last, Spencer maintained special views as to the Factors of Organic Evolution. He held to the inheritance of modifications that had been functionally produced during active life—

a view which has not obtained the assent of most competent biologists.

I face the inevitable question—Does Philosophy really mean ‘a science of the sciences’? Is any harmony or correlation of all human knowledge either possible or needful? Well, if not, then *cadit quaestio*, and Spencer’s claim to be a philosopher falls to the ground, whatever his claims to acute thoughts on biology, sociology, and ethic. We well know the energy and ability of the many schools of thought—theological, idealist, and ontological (or it may be sceptical)—which would maintain that the only Philosophy is one that is concerned with the mystery of the Universe and the soul of man; that human science cannot attain to the higher knowledge or to any generalized truth; that each branch of knowledge rests independent by itself, incapable of any ultimate generalization or real co-ordination at all. With such schools the true Spencerian does not dispute. He awaits the verdict of the ages—*securus iudicat orbis terrarum*. By their fruits you shall know them!

If there were indeed a final bar to synthesis, how do we account for the deep reverberation through the civilized world of the name and ideas of Herbert Spencer? That name, those ideas, have permeated East and West, science, philosophy, and literature, wherever culture exists. It is an illuminating influence that may be compared with the influence upon subsequent thought of the ideas of Bacon, of Hume, of Kant. His works have been translated into nearly all European languages. They are read and studied in India, in China, in Japan. In the vast reading public of America they are far more widely known and esteemed than even in our own country. At his death the journals,

the lecture halls, the pulpits of Christendom resounded with accounts of his life and work. In no nation had a deeper impression been made, we are told by an eminent native disciple, than in Japan. The *Sociology* has been translated into Chinese. Churches, Chapels, Synagogues, Ethicists, Secularists and Positivists, hailed Spencer as a leading philosopher of his time. A diligent friend has collected in three folio volumes this immense consensus of tributes in all the languages of Europe. Can it be that all this chorus of admiration and interest was aroused by what was after all (some might say) a pretentious dream, as baseless as the 'Ideas' of Plato and far less poetical? No! It testifies to the insatiable craving of the human mind for some coherent system of thought—the invincible instinct that human science is not a bubble of the imagination, that as science means a generalization of observations, so the sciences in the sum are capable of some ultimate generalization, some co-ordination, some organic relation to each other.

Is then the ultimate generalization of Spencer destined to achieve general, and final, acceptance? It is not for me to presume to answer such a question—all the more that, as I began by saying, I have been trained in a school from which Spencer continually insisted on his own dissent. But there are deep underlying axioms in the Synthetic Philosophy of Spencer which entirely coincide with all types of the Philosophy of Experience, as distinct from all Metaphysical and Intuitive Schools of Thought. They run on parallel, if not identical, lines with all types of what may be called Positive systems in the widest sense, so as to include those of Comte, Darwin, Littré, Mill, Buckle, Clifford, Huxley, Bain, and Lewes. These fundamental points are (1) *the universal reign of law* in all branches

of human cognition: that all true knowledge recognizes and rests on some invariable order of phenomena in all things subject to human observation, whether in the material or the moral world. (2) Next comes the *law of constant evolution*, the development of each cognizable state from a preceding state under the operation of regular influences and conditions. (3) Thirdly, the *relativity of knowledge* is a universal axiom; the *absolute* being beyond the bounds of human knowledge, and in its nature truly unthinkable. (4) Fourthly, Philosophy *relegates unverifiable hypotheses* to a world outside positive science. (5) The *Telos of Philosophy* is a constructive reorganization of all human knowledge in a *synthesis*, or correlation of parts. (6) The *Telos of human life* is the practical and continuous *amelioration* of the material, social, and moral conditions of *the Human Organism*—the unity of the Brotherhood of Man on this planet. In all these fundamental bases of thought Spencer's System coincides with all types of *positive* philosophy. They can only be displaced by the final triumph of some form of theological and intuitional belief.

But at this point, I mean with the acceptance of these six principles, and all their many corollaries, Spencer parts company with the other schools of the Philosophy of Experience, certainly with the *positive* school, strictly so called. Spencer takes a new and a wholly different position—a ground where he is entirely independent and unique. So far as I know, Spencer, with those who follow him, stands alone amongst all philosophers of any experimental and naturalist school in propounding an objective theory of the Universe. Of course, the theological, idealist, and ontological schools of thought have ever regarded it as the crown of philosophy

to solve the mystery of the Universe. But Spencer alone has ventured to face this abysmal problem by a scheme of logical deductions from the positive sciences, from the experience of a multiplicity of real observations of the phenomena of Nature and Man. What the 'Ideas' were to Plato, or the Church to Aquinas, or the Categories to Kant, that, and more than that, Evolution is to Spencer. 'Throughout the Universe, in general and in detail, there is an unceasing redistribution of matter and motion.' Thus he opens his new Book of Genesis. X

Surely, the most ardent Spencerian will hardly contend that this enormous claim has been admitted as yet at the tribunal of contemporary philosophy. To my own humble intelligence it sounds a paradox to find one, who is so keen a believer in the relativity of all knowledge, so ruthless an antagonist of any dogmatizing about the Absolute or Unconditioned Existence, the apostle, in fact, of the limitless and mystical Unknowable, the sad meditator on the infinitesimal littleness of man and his planetary speck amid the numberless millions of far grander suns—to find him, I say, revealing to us the Law of the whole Universe, on grounds, be it said, not of revelation, not of intuition, not on the *a priori* logic of *pure reason*, not of the still small voice innate in the human soul, but on grounds of demonstrated science, drawn from real observations and the record of our senses in experience.

According to the far humbler school in which I have been trained, any *Objective* synthesis, i. e. any co-ordination of our knowledge of phenomena according to their actual order *in rerum natura*, is an impossible Utopia. A true 'Cosmic philosophy,' to use the term of Spencer's American disciple, Prof. Fiske, is beyond the

range of our relative powers of mind. Any real synthesis of our knowledge of phenomena must be one relative to the powers of the human observation and reflection—not claiming to be any record of things as they are in the Universe. It is difficult to see how such a panorama of an objective world of things differs from the transcendental conception of 'Dinge an Sich.' The spectacle presented to our very limited powers of vision and of thought by such petty corner of the Unfathomable Universe as may be within our ken is still of itself so vast, so complex, so shifting, so subtle, and yet to us so infinite, that it must ever baffle our efforts to reach farther than a simple tabulation of what is within our range of mental vision. As well ask the painter of a grand landscape to draw, not what he sees from his standing-point, but every object which is actually present within the horizon—nay, beyond the horizon—and every object, not in just perspective as visible to the human eye, but in its actual proportion to all other objects around it.

I must assume that those who hear me are familiar with the famous sixteen propositions in which Spencer, in many successive publications, formulated what he called 'the cardinal principles developed in his works.' It was 'that process of transformation going on throughout the Cosmos as a whole, and in each larger or smaller part of it' They know too how the final definition of Evolution ran thus: '*Evolution is an integration of matter and concomitant dissipation of motion, during which the matter passes from a relatively indefinite, incoherent homogeneity to a relatively definite, coherent heterogeneity; and during which the retained motion undergoes a parallel transformation.*' And the Telos of the entire Synthetic Philosophy, as I understand it, is

to show that this law of evolution, with its corollary and associated laws, will explain the phenomena of our own world and our own race, as well as those of the Cosmos and of all things, organic and inorganic. These laws lie at the basis of Astronomy, Physics, Biology, Psychology, Sociology, and Ethics. These primary and universal laws would thus form a complete co-ordination of all our knowledge.

It is not assuming too much if we conclude that these laws are very widely admitted to possess, not only a very general application, but also to have a rare illuminating power in an immense number of special sciences. This would be admitted by most Physicists, and by the bulk of all adherents to the philosophy of experience. They constitute something which may be called a *Novum Organum* of scientific thought. But it would be, surely, going too far even for avowed Spencerians to claim, either, (1) that these laws are of *universal* application, or (2), that they form an adequate scheme of general science, a full synthesis of human knowledge. For my own part, admitting for these sixteen principles a high generality, and that they throw a most original light on philosophy, I must note some points in which we must await fresh elucidation.

If these sixteen propositions sum up the entire Synthetic Philosophy in germ, if the movement of Evolution and Dissolution, through alternate differentiation and integration, is the master-key of all science, then science is simply the law of the processes of Change. But the laws of *stability*, of permanence, are equally essential and dominant; indeed they come prior to laws of change. Using the terms in their true philosophic breadth, *Order* precedes *Progress*, determines it, and regulates it. *Progress is evolution out of Order*. That is to say, the course

of every development is irrevocably determined when the primordial type is constituted. The Child is father of the Man. But the child has all the essential organic features out of which the man is developed.

The orthodox Spencerian would possibly reply—there is no such thing as stability *in rerum natura*. Everything is in Evolution, from the solar system to the last theory about taxation, and the latest novelty in dress or in games. Absolutely, no doubt, we have no example of rigid immobility. The sun, the everlasting mountains, human nature—all are changing, however subtle and invisible to us be the process. But *relatively*, an immense body of our observations, and nearly half our scientific knowledge, deal with phenomena of apparent stability, order, permanent type. It would be riding to death the old apophthegm of Heracleitus—πάντα ρεῖ—to think of things only in *flux*, to ignore the vast field of Persistence of Type as dominating change. To those who reject the relativity of knowledge, it may be open to disregard mere relative permanence in a universe of absolute movement. This is not open to those who regard all our knowledge as relative, not absolute, to whom it is wholly based on experience.

For all practical purposes of reasoning, our experience reports a vast substratum of stability; and its laws and its conditions are as essential to all reasoning as the laws of change. It is one of the inherent vices of the objective synthesis, that it has to banish *Statics* from its scheme, and to concentrate its study on *Dynamics* alone. It is the intellectual and moral disease of our time to despise everything that is not in constant *flux*. The Philosophy of Evolution is limited *ex hypothesi* and *ex vi termini* to *dynamical* movements. But it is not true that Science consists

solely of dynamical laws. The laws of Type, of a stability *relative* to human observations, are antecedent in fact, and also in order of thought. Complete philosophy must rest on a theory at once statical and dynamical. A full science of Ethic cannot be constituted by tabulating in a series the changes recorded in moral sentiment, whilst wholly ignoring the permanent instincts of the human heart, the qualities of the human will, the powers of the human intelligence, and the personal, domestic, tribal, and national institutions which cling round man under all conditions of development. In Ethic these types and axiomatic forms are far more dominant, and even more conspicuous, than are the changes and developments. We do not doubt that Ethic is subject to incessant development. But relatively and for real knowledge, the fixed types, even if only apparently fixed, are far more essential to us.

The successors of Spencer have got to face the big problem of the application of the Evolution Philosophy to the entire field of the Inorganic sciences. Spencer himself omitted these altogether on palpably insufficient grounds. Had he boldly attempted to show the relation of his sixteen dogmas to the Physical Sciences, to Astronomy, to Physics with all its corollaries, to Chemistry, and to Mechanics, he must have been confronted with the dilemma—how little any mere theory of Evolution and Dissolution, apart from any theory of invariable Order and Type, would serve to illumine any inorganic science. To the Astronomer, the Solar System may be bodily moving towards the constellation Hercules; the Sun and the Earth may be cooling; and the orbit of the Planets may be infinitesimally diminishing. But the essential laws are the

almost, or apparently, fixed laws of planetary revolutions. To the physicist, the laws of gravitation, of molecular activity, of electric force, are not in *flux*, or, at least, are not in any serial Evolution, but are statical. To the chemist, evolution of any kind is absorbed in the invariable action of the elements and their compounds. Can Evolution solve any problem of radium or of X-rays?

To me it is a sad thought that the Synthetic Philosophy was never completed by its founder, so as to fill up the enormous *lacuna* left in it by the gap of the whole range of the Inorganic Sciences. It leaps from First Principles, said to apply to the whole range of knowledge, to Biology, Psychology, and Sociology, jumping across this vasty deep of Mathematics, Geometry, Astronomy, Physics, with all its ramifications of Barology, Thermology, Electricity, and the rest. Nor does Chemistry appear at all. Spencer from time to time touches on Astronomy and on Geology, so far as the laws of evolution bear upon the origin of the Solar System, and the formation of the strata of the Earth. But I do not remember a word as to the regular and double movement of our planet, or the solar system viewed as a permanent scheme of invariable Mechanics. But these are of infinitely greater interest, both scientifically and for all human ends, than are hypotheses about the Nebular Universe and its gradual modifications. How the conceptions of Gravitation, of the volumes and combinations of gases, of the transmission of light, of heat, of electric energy, can be reducible to terms of *Change* and *growth*, apart from persistence and invariable action—this is a mystery which at present seems buried with Spencer.

This attempt to reduce the essential laws of every

science to terms of change and movement must have a mischievous effect on subsequent inquiries. It would be ludicrous to limit Astronomy to hypotheses about the origin of the Solar System, and to limit Geology to speculations how the Earth came about, neglecting all notice of the Earth as we find it. It is an attempt to write a new Book of Genesis—based not on Revelation, not on observation of facts, but on unverifiable hypotheses. And all the time the student of Astronomy is left uninstructed as to the Precession of the Equinoxes, and the effect on the Earth of Sun-spots; and the student of Geology is left in the dark as to the extent and disposition of the Coal Measures. We know in this University only too well the consequences of limiting Science to a matter of *Origins*. The student of History, whose views about the French Revolution are quite rudimentary, is full of learning about the Mark System. And the candidate for a degree in Law, who is hazy about the Statute of Frauds or the Wills Acts, is voluble about the Witenagemot and the Laws of Ina.

I pass to another difficulty which the scheme of Universal Evolution presents to many minds. It proounds a single set of laws which claim to be equally applicable to all the sciences, both cosmical and human; and, more than that, it claims to supply us with an adequate but general elucidation of all phenomena in the Universe, on our Earth, and in human nature. At the close of his famous essay, *Reasons for dissenting from the Philosophy of M. Comte*, Spencer challenges Positivists to show that Comte ever held his view, '*that the factors producing changes of all kinds, inorganic and organic, co-operate everywhere throughout the Cosmos in the same general way, and everywhere work meta-*

morphoses having the same essential traits.' I venture to think that Positivists would warmly join with Spencer in denying that Comte held any such view, that he countenanced any such conception about the Cosmos or the general sciences. To followers of Comte it would be a fatal blot on any system of philosophy to use any uniform set of laws as an adequate logic of all the sciences in turn—assuming that any single set of principles sufficed to explain and co-ordinate the sciences within each, and co-ordinate one with another.

Comte, on the contrary, emphatically insists that the laws, the methods, and the principles of the different sciences are always different and distinct, practically incommensurable and not interchangeable. He holds that each general science has its own logic, its own generalization. Students of the Positive Philosophy do not need to be reminded that the Synthesis or co-ordination of the sciences, as proposed by Comte, consists, not in applying to them all alike one set of formulae, but in tracing their concatenation and mutual relations. To attempt a co-ordination of the sciences on one uniform theory—such theory primarily applied to the material world—inevitably forces the philosopher to reduce all social and moral problems to the terms of cosmical and physical problems, and ultimately to terms of molecular physics and mechanics. And this in fact is exactly what has happened. The cardinal principles of the Synthetic Philosophy are all formulated in terms that apply to the whole Solar System, and indeed to the original molecular basis of the Universe. If the Universal laws of Evolution and Dissolution and their corollaries—segregation, integration and differentiation—govern and explain the phenomena of the Universe, then social and moral progress has to be explained

in the language of Physics and Mechanics. In the school in which I have been trained this is known as Materialism in the strict sense of that word, which I take to be—reasoning about the soul of man, as if its functions were simply those of material units. This degradation of Science is repudiated, not only by Theology and by Metaphysics, but no less emphatically by Positive Philosophy.

The whole series of the human sciences, Psychology, Language, Art, Sociology, History, Economics, Ethic, and Politic—such branches of Knowledge as treat man otherwise than as an animal—have their special laws, their own logic, their own moral fibre, their own spiritual conclusion, quite incommensurable with the non-human sciences. Mechanics, Physics, Chemistry, Biology undoubtedly explain Man as an animal. But they never can explain Man as a loving, sympathetic, social, moral, religious being. This side of Man's nature, the greatest side of his nature, the largest, most dominant, and most sublime fact in all Nature, can only be explained by Social Science, solid Philosophy, true Religion. As the poet saw it in a vision, the last man shall proudly confront in his conscious superiority the waning and unconscious sun. The central and vivifying life-blood of this Social Science, of this Philosophy, of this Religion, must be—not Evolution, or the transformation of the homogeneous into the heterogeneous by continuous differentiation and integration—No! It must complete the development of humanity by Faith, Hope, and Love.

To attempt in any single scheme a Key to all the Sciences is as futile as a 'Key to all the Mythologies.' Matter and Thought are irreducible, for neither can be stated in terms of the other. The same is true of the

Organic and the Inorganic worlds, of the Human and the Non-human worlds, of the Physical and the Moral worlds, of the Cosmical and the Social worlds, of the law of Progress and the law of Order. On all sides we are confronted with a series of Antinomies, Dualisms, and irreducible ultimate conceptions. The World and Humanity are not reducible to any common measure. If *objectively*, and *in rerum natura*, the World is everywhere in eternal *flux*; *relatively* and *humanly*, the world of inorganic Nature is in a state of comparative permanence and stability as compared with the organic world. So the Non-human world is relatively in a state of fixity as compared with the Human world and its infinitely complex and subtle laws of progress. The Evolution of Man is infinitely more subtle, more continuous, more important to us than the Evolution of the Physical world. Wonderful as may be the Evolution of the Horse from Eohippus and Hipparium in ten or twenty millions of years, the evolution of Man in ten or twenty centuries is infinitely more marvellous, and is certainly more complex—and perhaps is more useful for us to know. No formula which explains the Evolution of the Horse, and of Man, in terms of the Evolution of the Milky Way and the Nebula of Orion, can be a very fertile organum of thought. It does not advance us much to be furnished with a set of formulas which profess equally to explain the rotation of the earth and the French Revolution, the pressure of the atmosphere and the growth of the moral sense, the Precession of the Equinoxes and the social improvement of women, the indivisibility of molecules and the rise and growth of the Catholic Church. And this law is the perpetual 'transformation from an indefinite incoherent homogeneity to a definite, coherent hetero-

geneity, through successive differentiation and integration!' That may all be quite true. I hold it to be very largely true, and profoundly suggestive. But it is not definite enough—not specific, not itself sufficiently differentiated. Mill, adopting a phrase of Novalis, called Comte a 'morality-intoxicated man.' Comte might perhaps have looked on Spencer as a man intoxicated with evolution.

It is a singular fact that the Synthetic Philosophy of Evolution contains no history of human civilization in its entirety, as a continuous biography of man. There is not in it, and never was even projected, any Philosophy of general History, the Dynamics in fact of Sociology. In the 'Principles of Sociology' there are a body of acute but miscellaneous observations, and some profound suggestions, as to the origin of institutions, primitive habits, rudimentary groups. But we never get further than glimpses of savage life, the variations in primaevial rites, and the survival of ancient customs. In all Spencer's vast output there is nothing that can be called any theory of general history. What we have is the *embryology* of society. But no science is constituted, if its conclusions are limited to embryology.

Take the rise of the Persian Empire in the East, when pre-historic and most disparate tribes were consolidated into a military tyranny. Is that adequately explained by the law of 'Transformation from an indefinite homogeneity to a definite heterogeneity?' Take the course of the Greek world from Agamemnon to Alexander. Is that a change from homogeneity to heterogeneity? Or take the Roman world from Romulus to Trajan. Was it more homogeneous in the first century of Rome than in the first century A.D.? Was

the civilized world in the ninth century more coherent than it had been in the first century after Christ ? Take the rise and development of the Catholic Church, or the history of Christendom from the time of St. Paul to our day. They may be more heterogeneous to-day, but is either more definite, more consistent now ? Spencer's laws offer us illuminating flashes of light across that vast waste of troubled waters that we call the history of mankind. But continuous history was to Spencer a sealed book. He so misread such pages as he ever opened that we can hardly wish it had been otherwise.

Over the coffin which held the mortal remains of Herbert Spencer an eloquent friend pronounced a magnificent eulogy. He said, 'All history, all science, all the varying forms of thought and belief, all the institutions of all the stages of man's progress were brought together ; and out of this innumerable multitude of data emerged one coherent, luminous, and vitalized conception of the evolution of the world.' It is a noble ideal towards which Spencer toiled with heroic constancy for forty years. It is an ideal which no English philosopher has ever essayed to reach, an ideal towards which Spencer contributed germs of imperishable truth. Would that I could join in the confidence that this mighty Ideal had been achieved ! When I reflect on the enormous gaps in the Synthetic System, the absence of any continuous theory of general history, the absence of any systematic treatment, or even of any sketch, of all the Inorganic Sciences—Mechanics, Astronomy, Physics, Chemistry—I reluctantly am forced to regard the claim, that out of *all history, all science*, Spencer has evolved 'one coherent conception,' as being far beyond the truth. And when I reflect on the claim, that the

one supreme conception of Evolution, with its monotonous, rigid, mechanical dogmas, sufficed to illustrate and even to co-ordinate all phenomena, both cosmical and human, I even begin to doubt if the very basis of the Evolution system were on sound philosophical lines.

Even if this were so, Spencer happily was far too great a philosopher, far too acute and observant of facts, too much saturated with scientific learning of all kinds, to suffer himself to be overweighted and confined by the materialistic dogmas with which he set forth. Though he gave the world no continuous view of general history, he endowed historical research with a series of brilliant elucidations. Though he leapt across the vast chasm of the Inorganic Sciences in his eagerness to come to Life, to Mankind, to Right and Wrong in human conduct, he turned his powerful searchlight upon one science after another, as it swept round the horizon with its rapidly revolving flash. He, who hotly rejected any serial order in the sciences, in practice evolved his own synthesis in regular series; nay, he built up his whole system in the very serial order for which he had condemned a rival philosophy. And, though he sought to base the Philosophy of Evolution on a set of dogmas as purely physical as if they applied to nothing but celestial mechanics, in the end Spencer devoted the whole strength of his great brain and his spiritual sense of justice, honour, and benevolence in the brotherhood of Man, to the supreme science of society and of morality. Never did Philosophy open with aspect more physical. Never did it insist more imperatively on the law of Justice from man to man, on the supreme duty of Altruism.

Over the portal of the Evolution Philosophy I see

engraved these words :—‘Throughout the Universe, in general, and in detail, there is an unceasing redistribution of matter and of motion.’

Over the portal of every Synthetic Philosophy which can command the full assent of the ages to come, I can conceive there will be seen some such aphorisms as these :—

- ‘Order is the Foundation—Progress the end.’
- ‘Progress is the development of Order.’
- ‘Live for others.’
- ‘Man becomes more and more religious, as he becomes more wise, more just, more loving.’

And I feel an assurance beyond words that these axioms are more true, lie nearer to the soul of man, and will prove more fit to advance and ennoble our life on earth.

